

Pandemic Influenza – Should we be afraid?

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So should we fear the bird flu?



Pandemic of 1918



Impact of 1918 pandemic

- 675,000 people died in the U.S. (population was 1/3 of current) in 1918-1919
- Mostly young, healthy people
- By comparison, 36,000 people a year die from the annual flu (H1N2)

Impact (cont'd)

- Thousands of cases of persistent neurological impairments
- Social: 15-35% of people could become sick over the course of several months
- Economic: Estimates are that a pandemic would cost over \$200 billion

Current threat

- Highly pathogenic H5N1
- Most deaths from respiratory failure



Possible death rate

- In 1918, the U.S. pandemic death rate was 0.67%
- Assuming the same death rate and 90,000 “active users” in the California Area, 500-600 of people could die (this would be the about equivalent to all the deaths from diabetes in several years)

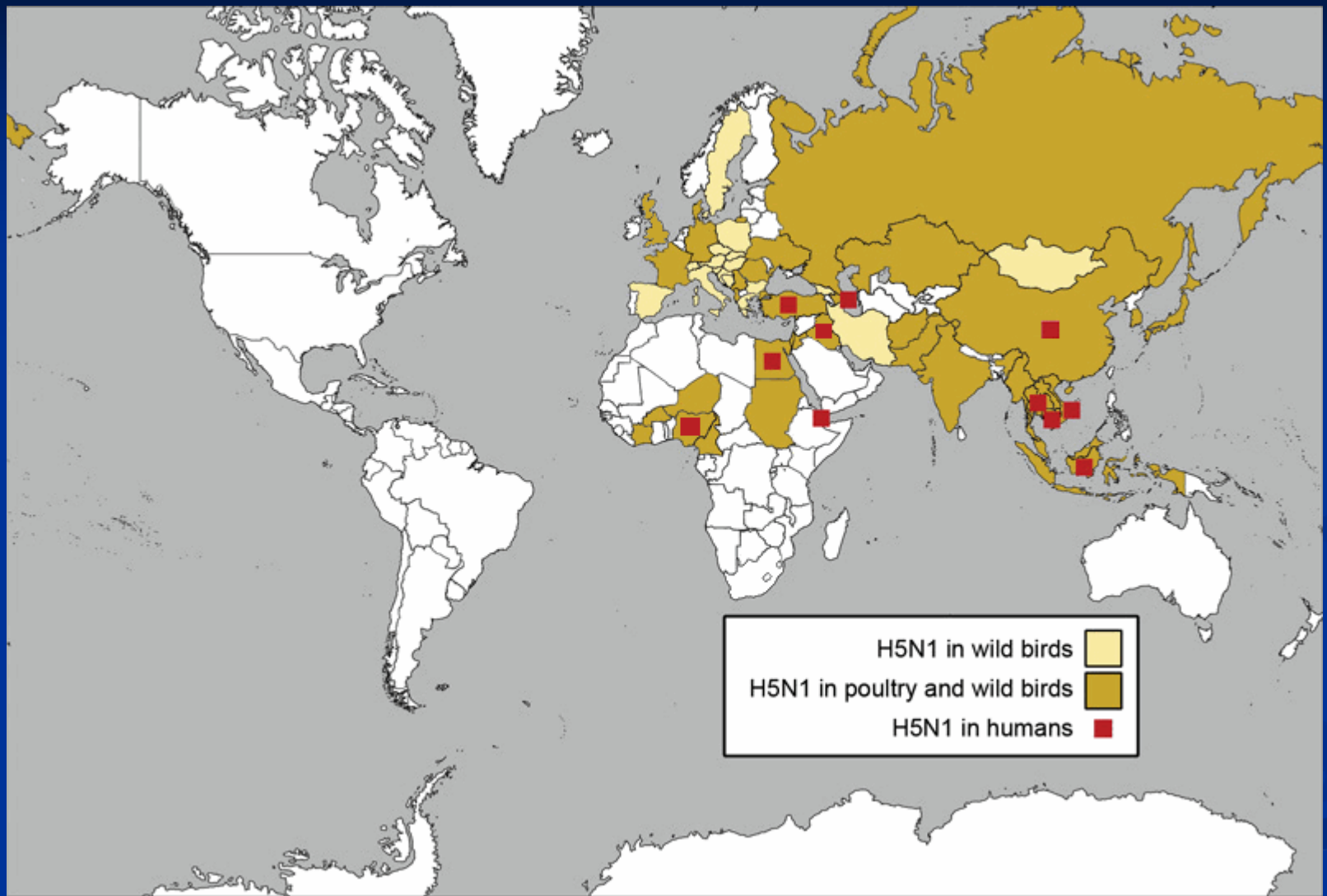
H5N1 Human Cases

Cumulative Number of Confirmed Human Cases of Avian Influenza A/(H5N1) Reported to WHO

12 March 2007

Country	2003		2004		2005		2006		2007		Total	
	cases	deaths	cases	deaths	cases	deaths	cases	deaths	cases	deaths	cases	deaths
Azerbaijan	0	0	0	0	0	0	8	5	0	0	8	5
Cambodia	0	0	0	0	4	4	2	2	0	0	6	6
China	1	1	0	0	8	5	13	8	1	0	23	14
Djibouti	0	0	0	0	0	0	1	0	0	0	1	0
Egypt	0	0	0	0	0	0	18	10	6	3	24	13
Indonesia	0	0	0	0	19	12	56	46	6	5	81	63
Iraq	0	0	0	0	0	0	3	2	0	0	3	2
Lao People's Democratic Republic	0	0	0	0	0	0	0	0	1	1	1	1
Nigeria	0	0	0	0	0	0	0	0	1	1	1	1
Thailand	0	0	17	12	5	2	3	3	0	0	25	17
Turkey	0	0	0	0	0	0	12	4	0	0	12	4
Viet Nam	3	3	29	20	61	19	0	0	0	0	93	42
Total	4	4	46	32	97	42	116	80	15	10	278	168

Total number of cases includes number of deaths.
WHO reports only laboratory-confirmed cases.
All dates refer to onset of illness.



Spread of the disease

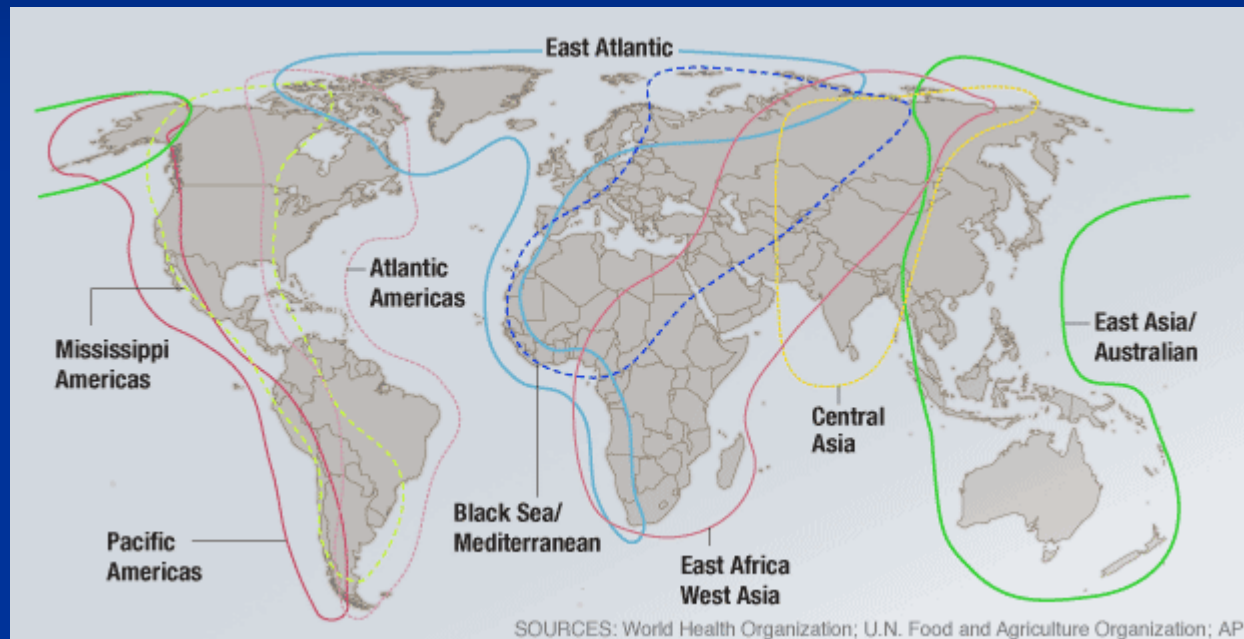
- Spread by contact with infected birds



- Most cases in countries in which domestic poultry are prevalent



Migratory pathways



ANIMAL HEALTH **AVIAN INFLUENZA**

Avian influenza in cats should be monitored



So far no sustained virus transmission in cats or from cats to humans

8 February 2007, Rome - Cats can become infected with the highly lethal H5N1 avian influenza virus, but at present there is no scientific evidence to suggest that there has been sustained transmission of the virus in cats or from cats to humans, FAO said in a statement today. As a precautionary measure, FAO recommended

that in areas where the H5N1 virus has been found in poultry or wild birds, cats should be separated from infected birds until the danger has passed. On commercial poultry premises cats should even be kept indoors.

Click **here** for more information.

Probability of pandemic

- Over last 400 years, have averaged at least one major influenza pandemic every 80 years
- While some experts express skepticism, most believe a pandemic is imminent

Probability (cont'd)

“Health Experts Bet on Spread of Bird Flu”

By MIKE STOBBE

The Associated Press

Thursday, March 1, 2007

ATLANTA -- Think bird flu will become a worldwide threat this summer? Wanna put some money on that?....”

So what is the Federal government
doing to prepare?

National Strategy for Pandemic Influenza

- Issued by President Bush November 1, 2005
- Department of Health and Human Services given lead role
- \$5.5 billion approved to implement strategy
- DHHS Pandemic Influenza Plan released November 2, 2005

Indian Health Service Pandemic Influenza Activities

- Primary activity involves planning workbook
- Workbook first developed Spring 2006, hardcopy distributed
- On-line version developed this past winter. All health programs recommended to complete at www.surveymonkey.com (required for Federal facilities in other Areas)

Workbook Activities

California Area IHS

- Guidance and technical assistance given on completing the pandemic flu planning workbook given since January 2007
- Encouraging all programs to complete a NIMS compliant plan, preferably the IHS pandemic flu planning workbook in the next few months

Workbook Purpose/ Benefits

- Standardizes planning and response operations for all Indian health programs and ensures compliance with National Incident Management System (NIMS)
- Provide a central location for information that may be necessary during a pandemic
- The process of completing the workbook is very instructional
- Encourages the formation of working relationships between tribal and local governments and community organizations that may need to work with your Indian health program

Workbook is comprehensive

- Leadership, Networking and Community Preparedness
- Surveillance
- Healthcare & Public Health Partners
- Infection Control & Clinical Guidelines
- Vaccine and Antiviral Distribution and Use
- Community Disease Control & Prevention
- Public Health Communications
- Workforce Support

1.2 Who is the state public health/medical authority (e.g. state medical officer) for your service unit/healthcare facility/tribal community?

Name	Title	Agency	Phone	E-mail
Mark Horton, M.D.	Public Health Officer	California, DHS		

1.3 Who is the *IHS Area* public health/medical authority (e.g. Chief Medical Officer) for your service unit/healthcare facility/ tribal community?

Name	Title	Agency	Phone	E-mail
David Sprenger, M.D.	CMO	IHS	916-930-3981 x321	David.sprenger@ihs.gov

1.5 Who is the *county* public health/medical authority (e.g. county health officer) for your service unit/healthcare facility/tribal community?

Name	Title	Agency	Phone	E-mail
Glenna Trochet, M.D.	Public Health Officer	Sacramento County Department of Public Health	916-875-5881	

1.6 Who is the *local* public health/medical authority (e.g. city/town health officer) for your service unit/healthcare facility/tribal community?

Name	Title	Agency	Phone	E-mail

What other tools do we have for addressing the next pandemic?



Good news - new tools

- “If a pandemic with similar characteristics were to occur in the near future...relative number of deaths would be substantially lower than that which occurred in 1918”- *Anthony Fauci, M.D., Director, National Institutes of Allergy and Infectious Disease*
- We now have antivirals that are 60-70% effective in preventing death in elderly patients with annual flu
- We now have vaccines

...However

- Vaccine role is limited because
 - It is difficult to predict exactly to which form the virus will mutate
 - It takes 6 months for full scale vaccine production
 - The Indian Health Service has not been utilized for vaccination distribution. Therefore, all Indian health programs will have to rely on local public health resources

Improved tools – Learning from history

- *“Experts Say Further Study of Past Pandemics Key to Preparedness”*

- Planning



- Surveillance



- Communication



So, should we be afraid?

- Some protection from modern medicine and technological advances
- Still, significant concern is warranted
- Remaining concerned and vigilant may be our best tool

Questions

- www.pandemicflu.gov